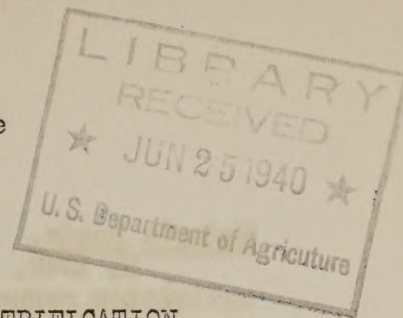


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EXTENSION OBJECTIVES AND PROCEDURE FOR RURAL ELECTRIFICATION

INSTRUCTION AND DEMONSTRATION*

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I know that every agricultural engineer here has a generally good grasp of the rural electrification problem in his own State, at least, and a good insight into it as it has progressed in this part of the country. Since many of you have been actively engaged in this development during the past 15 years, there is no necessity for reviewing the general situation.

However, there are three things I would like to emphasize as especially important to this extension conference session on rural electrification--these are cooperation, coordination, and project planning.

The acceleration which this development has built up leaves no room for doubt as to the necessity for these three ingredients in setting up and maintaining an effective program.

Several phases of rural electrification can be selected by the agricultural engineer for extension projects. It should be determined which of these are of most importance or in need of first attention in any particular State.

Earlier Activities.

Fifteen years ago the need was for fundamental information on the economic value of electricity as a form of power for the farmer and rural resident. This was followed by a need for equitable plans of getting the service out to the rural users. This developed into studies and investigations in the direction of standardizing and reducing the cost of line construction. Almost simultaneously the problem of organizing the rural people into units to receive service developed. Farm wiring was a constant problem.

The Main Objective.

Many of us have played a part in all these steps, and more, before we finally arrived at the real goal of rural electrification--"economic use and advantages of electricity on the farm and in the rural home."

*Presented before the Regional Extension Conference for Northeastern States, Park Central Hotel, New York City, February 29 to March 2, 1940.

Today's Needs.

In 1940, however, we may find the need for some of these earlier activities reduced and an increasing need for the real objective material--"economic and advantageous use"--coming to the front, as the extension agricultural engineers' most important problem.

There will still be some need and necessity to encourage the electric utility to increase construction of lines, the electrical manufacturer to develop equipment, the electrical contractors to install substantial and correct wiring, the farm organizations to develop compact groups to receive service, and regulatory bodies to assist in clearing away obstacles. We should be aware, however, that a particular responsibility, which will continue indefinitely, is that of information and education on practical equipment for the rural user.

Field of Activity--1940.

The field in which the agricultural engineer may serve all agencies to the best advantage may be said to start with the secondary distribution system as it approaches and enters the rural users' premises. Starting at this point the most important divisions of our field are:

1. Farm wiring--materials, systems, and capacity.

- a. Exterior.
- b. Interior (home and farm buildings).

2. Economic applications and uses.

- a. The farm and rural home.
- b. The operating farm enterprises.
 - 1. General.
 - 2. Dairy.
 - 3. Poultry.
 - 4. Fruit.

c. Miscellaneous rural enterprises--not farm.

There appears to be no end to, nor divorcing of, these two main objectives. One is continuously contingent on the other for an increasing and satisfactory use of electricity. If the farm wiring problem is neglected, what may be adequate today not only becomes inadequate tomorrow, but may represent a real hazard.

Therefore, I would like to stress the importance of the subject of adequate farm wiring as an essential part of every agricultural engineering program. As long as farms and rural properties are wired, this will be one of our important fields of educational activity. This is the more important since the National Adequate Wiring Bureau plan does not include rural properties.

I have made no attempt to break down the second item--applications --into a list of individual uses. It is generally understood that there are nearly 200 of these and time does not permit. The needs in each State will dictate the particular ones that should be given attention. Whatever ones are selected, it is of fully as much importance to consider and discuss the development, procedure, and plan of carrying on effective programs.

Approach and Procedure.

The objective of all extension activity is to reach and assist the greatest number of individuals in the program that is set up. To determine which procedures will bring this about is important.

We may divide the procedure that may be employed into two general groups:

1. Direct approach to farm public.
2. Indirect approach to farm public.

The Direct approach method is familiar to all and has been employed for a long time. It can be summarized briefly as follows:

Educational talks at Extension Service farm meetings.
Educational talks at outside cooperating organization meetings.
Educational talks at special agricultural engineering farm meetings.
Educational talks at other farm organization meetings.
Distribution of written material direct to the individual.

The Indirect approach method also has a great deal of merit in many cases. Frequently, working with an individual or small group, if selected on the basis of their ability to act as a relay of information to others, will result in making them radiation points which will magnify many times the efforts of an extension staff member, over a period of months. This is an outstanding advantage of this method.

Here it is that cooperation, coordination, and program planning should be given careful study and development. There are several organizations and agencies that are, either directly or indirectly, concerned in this same field, and although their objectives may be different, their procedure and methods may be nearly parallel with ours. These should be examined and the desirability of joint supporting action on a unified procedure basis be given thorough consideration. Some of these agencies and organizations are:

Other subject matter extension specialists--training course.
Farm equipment dealer personnel.
Rural Electrification Administration, Utilization Division.
Rural service departments of utilities.
Electrical equipment sales personnel.
Electric wiring contractors.
Other similar organizations.

Unification of recommendations on best practices and methods from all agencies in a State is the best way to avoid confusion and misunderstanding. It is frequently desirable to effect such relationships early in the extension program.

Methods.

Engineering problems, since they usually deal with equipment appliances and devices, invariably involve the installation problem, which may prove to be either simple or complicated; but in any case it becomes an individual problem with the consumer, and neglect of this part of the problem means that we have only partially completed our task.

This means that extension work in engineering may be initiated on a large group approach basis but may terminate in the individual case problem classification. Economic use of electricity means electricity at work by equipment installed and operating properly. We may be prepared to develop the desire for these things, prove their feasibility and economic advantage, but is there adequate provision made to follow this up, where necessary, to help individuals with particular or difficult installation problems? Notwithstanding that this dwindles down to an individual service basis--are we fulfilling our obligation in the matter until this is done? This part of our procedure should be carefully studied since failures due to faulty installations can reflect on our methods unfavorably with as much ease as favorable reactions follow successful procedures.

Several methods can be mentioned as mediums for use of the extension agricultural engineer. Briefly these are:

1. Meetings.

- Educational talks, conferences, round tables, etc.
- Educational talks combined with demonstrations.
- Equipment demonstrations, only at exhibitions.
- Still or motion pictures.
- Farmers' and homemakers' week programs.

2. Demonstrations.

- Demonstration farms.
- Farm tours--special applications.
- Truck and trailer demonstration outfits.

3. Educational Literature.

- Mimeographed literature.
- Printed bulletins.
 - Own State.
 - Other States.
 - Farmers' Bulletins.
 - Rural Electrification Administration literature.
 - Selected bulletins of cooperating agencies.

4. Follow-up Process--where individuals require it.

The preparation of educational literature in the form of bulletins and mimeographed material is probably one of our most effective tools and should have our constant and continued attention.

Staff and Facilities.

All the above presumes an adequate amount of time and personnel commensurate with this far-reaching and important development in the agricultural field. As always, the cloth must be cut to fit this sometimes troublesome pattern.

Conclusion.

This brief symposium is offered, not as a complete digest of the possibilities of extension agricultural engineering in the rural electrification field, but more to foster thought and discussion on what is often equally important as the thing itself, and that is--the way it may be accomplished.



The following is a list of the names of the persons who have been appointed to the various committees of the Board of Directors of the City of New York, for the year 1901.

The Board of Directors of the City of New York, for the year 1901, has appointed the following committees:

1. A committee on the part of the Board of Directors to investigate the condition of the City of New York, and to report thereon to the Board of Directors at its next meeting.